REMARKS/DISCUSSION OF ISSUES

Specification. In the Non-Final Office Action, Examiner Shute objected to the specification. The Applicant has amended the specification herein to obviate Examiner Shute's object to the specification, and to correct typographical and formatting errors. No new matter was introduced by the amendment of the specification herein. Withdrawal of the objection to the specification is therefore respectfully requested.

Drawings. In the Non-Final Office Action, Examiner Shute objected to the drawings on various grounds. The Applicant has amended FIGS. 1 and 3 herein to obviate Examiner Shute's object to the drawings. No new matter was introduced by the amendment of the drawings herein. Withdrawal of the objection to the drawings is therefore respectfully requested.

Claims. In the Non-Final Office Action, Examiner Shute rejected pending claims 1-14 on various grounds. The Applicant responds to each rejection as subsequently recited herein, and respectfully requests reconsideration and further examination of the present application under 37 CFR § 1.112:

A. Examiner Shute rejected claim 1 under 35 U.S.C. §112, ¶2 as being indefinite

The Applicant has cancelled claim 1 without prejudice or disclaimer to the subject matter of claim 1. Withdrawal of the rejection of claim 1 under 35 U.S.C. §112, ¶2 as being indefinite is therefore respectfully requested.

B. Examiner Shute rejected claim 8 under 35 U.S.C. §112, ¶2 as being indefinite

The Applicant has cancelled claim 8 without prejudice or disclaimer to the subject matter of claim 8. Withdrawal of the rejection of claim 8 under 35 U.S.C. §112, ¶2 as being indefinite is therefore respectfully requested.

C. Examiner Shute rejected claim 9 under 35 U.S.C. §112, ¶2 as being indefinite

The Applicant has cancelled claim 9 without prejudice or disclaimer to the subject matter of claim 9. Withdrawal of the rejection of claim 9 under 35 U.S.C. §112, ¶2 as being indefinite is therefore respectfully requested.

D. Examiner Shute rejected claims 1, 2, 4 and 7 under 35 U.S.C. §103(a) as being unpatentable over Applicant's *Admitted Prior Art* in view of U.S. Patent No. 5,070,967 to *Katzy* et al.

The Applicant has thoroughly considered Examiner Shute's remarks concerning the patentability of claims 1, 2, 4 and 7 over *Admitted Prior Art* in view of *Katzy*. The Applicant has also thoroughly read *Katzy*. The Applicant respectfully traverses this obviousness rejection of claims 1, 2, 4 and 7, because Examiner *Shute* as failed to establish a *prima facie* case of obviousness are required by MPEP §2143. In particular, Examiner Shute has failed to cite a suggestion or a motivation in the *Admitted Prior Art* and/or *Katzy* to modify the *Admitted Prior Art* in view of *Katzy* in order to obtain the claimed invention as recited in independent claims 1, 4 and 7.

Specifically, in the Non-Final Office Action, Examiner Shute asserts that it would have been obvious in the art at the time of the present invention to replace the parallel to serial (or serial to parallel) conversion function performed by the microprocessor of the *Admitted Prior Art* with an equivalent separate hardware device per *Katzy*. However, in order to establish a *prima facie* case of obviousness, MPEP §2143 requires Examiner Shute to cite a suggestion or a motivation, in the *Admitted Prior Art* and/or *Katzy*, to modify the *Admitted Prior Art* in view of *Katzy* in order to obtain the claimed invention as recited in independent claims 1, 4 and 7. The mere fact that the *Admitted Prior Art* can be modified in view of *Katzy* to obtain the

claimed invention as recited in independent claims 1, 4 and 7 does not render the resultant modification obvious unless the prior art also suggests the desirability of the combination. See, *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (Claims were directed to an apparatus for producing an aerated cementitious composition by drawing air into the cementitious composition by driving the output pump at a capacity greater than the feed rate. The prior art reference taught that the feed means can be run at a variable speed, however the court found that this does not require that the output pump be run at the claimed speed so that air is drawn into the mixing chamber and is entrained in the ingredients during operation. Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." 916 F.2d at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992) (flexible landscape edging device which is conformable to a ground surface of varying slope not suggested by combination of prior art references).

While the Applicant respectfully asserts that *Katzy* clearly teaches a well-known equivalency between hardware components performing processing functions and a microprocessor performing the same functions, *Katzy* however fails to teach or suggest one set of circumstances in which is it more appropriate to employ hardware components instead of a microprocessor and another set of circumstances in which is it more appropriate to employ the microprocessor instead of the hardware components. Consequently, one skilled in the art at the time of the present invention would not have been able to ascertain whether it would have been more appropriate to maintain a performance of the conversion function by the microprocessor as taught by the *Admitted Prior Art* or more appropriate to employ a hardware component in lieu of the microprocessor for performing the conversion function as taught by *Katzy*. Thus, one skilled in the art at the time of the present invention would not have been motivated by neither the *Admitted Prior Art* nor *Katzy* to employ a hardware component in lieu of the microprocessor for performing the conversion function. As such, Examiner Shute's obviousness rejection of claims 1, 2, 4 and 7 is nothing more than an improper "obvious to try" rejection.

While the Applicant respectfully traverses this obviousness rejection of claims 1, 2, 4 and 7 as shown above, the Applicant has cancelled claims 1, 2, 4 and 7 herein without prejudice and disclaimer to the subject matter of claims 1, 2, 4 and 7 herein, and added new claims 14-23. The Applicant respectfully asserts that the *Admitted Prior Art, Katzy* and the remaining art of record, alone or in combination, fail to disclose, teach or suggest any limitation of new independent claims 14, 19 and 23 for the same reason herein the *Admitted Prior Art, Katzy* and the remaining art of record, alone or in combination, fail to disclose, teach or suggest the aforementioned limitation of independent claims 1, 4 and 7.

Withdrawal of the rejection of claims 1, 2, 4 and 7 under 35 U.S.C. §103(a) as being unpatentable over *Admitted Prior Art* in view of *Katzy* is therefore respectfully requested, and allowance of claims 14-23 are therefore respectfully requested.

E. Examiner Shute rejected claims 3, 5, 6, 10 and 11 under 35 U.S.C. §103(a) as being unpatentable over Applicant's *Admitted Prior Art* in view of U.S. Patent No. 5,070,967 to *Katzy* et al. and in further view of U.S. Patent No. 4,887,261 to *Roempp* and in still further view of U.S. Patent No. 3,671,865 to *Szumila* et al.

The Applicant has cancelled claims 3, 5, 6 and 11 without prejudice or disclaimer to the subject matter of claims 3, 5, 6 and 11. Withdrawal of the rejection of claims 3, 5, 6 and 11 under 35 U.S.C. §103(a) as being unpatentable over *Admitted Prior Art* in view of *Katzy*, *Roempp* and *Szumila* is therefore respectfully requested.

As to independent claim 10, the Applicant has thoroughly considered Examiner Shute's remarks concerning the patentability of independent claim 10 over the *Admitted Prior Art* in view of *Katzy*, *Roempp* and *Szumila*. The Applicant has also thoroughly read *Katzy*, *Roempp* and *Szumila*. To warrant this obviousness rejection of independent claim 10, all the claim limitations recited in claims 10 must be taught or suggested by the combination of the *Admitted Prior Art, Katzy*, *Roempp* and *Szumila*. See, MPEP §2131. The Applicant respectfully traverses this obviousness rejection of independent claim 10, because the *Admitted Prior Art, Katzy*,

Roempp and *Szumila* in combination fail to disclose, teach or suggest "placing a portion of said signal into a preshift register, and checking said portion for errors", "shifting said portion into a shift register if said portion is error free" and "repeating steps a and b plural times before shifting said signals out of said shift register to a lighting device" as recited in independent claim 10.

As to the traversal, Examiner Shute has recognized the failure of *Admitted Prior Art, Katzy* and *Roempp* to teach or suggest the aforementioned limitations of independent claim 10. Additionally, a proper reading of *Szumila* reveals that *Szumila* teaches away from the aforementioned limitations of independent claim 10. Specifically, as illustrated in FIG. 1, *Szumila* discloses three (3) shift registers. The first shift register "A"14 serially receives 30 bits from a receiver 11 for subsequent decoding by a computer or from the computer for subsequent transmission by a transmitter 22. The second shift register "B" 15 serially receives the 30 bits from shift register "A" 14 in response to a signal from a counter 16 whereby an error detection and correction circuit 17 performs error functions on the 30 bits. The third shift register "C" 16 serially receives the 30 bits from shift register "B" 15 in response to a signal from counter 16 whereby the 30 bits is shifted out of shift register "C" 16 to either the computer when the system is synchronized or to transmitter 22 via a switch 21 and sync generator 23. See, *Szumila* at column 3, lines 21-61.

Szumila fails to teach or suggest a first portion of the 30 bits (e.g., the 15 LSB bits) being shifted through the three shift registers prior to an additional portion or portions of the 30 bits (e.g., the 15 MSB bits) being shifted through the three shift registers. Moreover, a modification of *Szumila* to shift portions of the 30 bits through the three registers would decrease the speed of data transmission through the system due to the extra processing, and *Szumila* clearly teaches away from shifting portions of the 30 bits through the three registers by emphasizing the speed of data transmission under *Szumila* is important. See, *Szumila* at column 1, lines 16-28.

While the Applicant respectfully traverses this obviousness rejection of claim 10 as shown above, the Applicant has cancelled claims 10 herein without prejudice and disclaimer to the subject matter of claim 10, and added new claims 24-27. The Applicant respectfully asserts that the *Admitted Prior Art, Katzy, Roempp, Szumila*

and the remaining art of record, alone or in combination, fail to disclose, teach or suggest any limitation of new independent claim 24 for the same reason herein the *Admitted Prior Art, Katzy, Roempp, Szumila* and the remaining art of record, alone or in combination, fail to disclose, teach or suggest the aforementioned limitation of independent claim 10.

Withdrawal of the rejection of claim 10 under §103(a) as being unpatentable over *Admitted Prior Art* in view of *Katzy, Roempp* and *Szumila* is therefore respectfully requested, and allowance of claims 24-27 are therefore respectfully requested.

F. Examiner Shute rejected claims 12 and 13 under 35 U.S.C. §103(a) as being unpatentable over Applicant's *Admitted Prior Art* in view of U.S. Patent No. 5,070,967 to *Katzy* et al. and in further view of U.S. Patent No. 4,887,261 to *Roempp* and in still further view of U.S. Patent No. 3,671,865 to *Szumila* et al. and in still further view of U.S. Patent No. 4,347,499 to *Burkman*

The Applicant has cancelled claims 12 and 13 without prejudice or disclaimer to the subject matter of claims 12 and 13. Withdrawal of the rejection of claims 12 and 13 under 35 U.S.C. §103(a) as being unpatentable over *Admitted Prior Art* in view of *Katzy, Roempp, Szumila* and *Burkman* is therefore respectfully requested.

G. Examiner Shute rejected claims 8 and 9 under 35 U.S.C. §103(a) as being unpatentable over Applicant's *Admitted Prior Art* in view of U.S. Patent No. 5,070,967 to *Katzy* et al. and in further view of U.S. Patent No. 4,347,499 to *Burkman*, Sr. et al.

The Applicant has cancelled claims 8 and 9 without prejudice or disclaimer to the subject matter of claims 8 and 9. Withdrawal of the rejection of claims 8 and 9 under 35 U.S.C. §103(a) as being unpatentable over *Admitted Prior Art* in view of *Katzy* and *Burkman* is therefore respectfully requested.

SUMMARY

Examiner Shute's rejections of pending claims 1-13 have been obviated by the cancellation herein of claims 1-13. The Applicant has supported an allowance of new claims 14-28 over the art of record. The Applicant respectfully submits that new claims 14-28 as listed herein fully satisfy the requirements of 35 U.S.C. §§ 102, 103 and 112. In view of the foregoing, favorable consideration and early passage to issue of the present application is respectfully requested. If any points remain in issue that may best be resolved through a personal or telephonic interview, Examiner Shute is respectfully requested to contact the undersigned at the telephone number listed below.

Dated: **March 22, 2004**

Respectfully submitted,
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